### 2003

# Virginia Department of Transportation Daily Traffic Volume Estimates Including Vehicle Classification Estimates

where available

# Special Locality Report 299

Town of Shenandoah

Prepared By

Virginia Department of Transportation Mobility Management Division

In Cooperation With

U.S. Department of Transportation Federal Highway Administration

### Virginia Department of Transportation Mobility Management Division Traffic Monitoring Section

The Virginia Department of Transportation (VDOT) conducts a program where traffic count data are gathered from sensors in or along streets and highways and other sources. From these data, estimates of the average number of vehicles that traveled each segment of road are calculated. VDOT periodically publishes booklets listing these estimates.

One of these booklets, titled "Average Daily Traffic Volumes with Vehicle Classification Data, on Interstate, Arterial and Primary Routes" includes a list of each Interstate and Primary highway segment with the estimated Annual Average Daily Traffic (AADT) for that segment. AADT is the total annual traffic estimate divided by the number of days in the year. This booklet also includes information such as estimates of the percentage of the AADT made up by 6 different vehicle types, ranging from cars to double trailer trucks; estimated Annual Average Weekday Traffic (AAWDT), which is the number of vehicles estimated to have traveled the segment of highway during a 24 hour weekday averaged over the year; as well as Peak Hour and Peak Direction factors used by planners to formulate design criteria.

In addition to the Primary and Interstate publication, one hundred books are published periodically, one for each of 100 areas across the state defined by VDOT for record-keeping purposes. These books include traffic volume estimates for roads within the county, cities, and towns within the area. These books are titled "Daily Traffic Volumes Including Vehicle Classification Estimates, where available; Jurisdiction Report numbers 00 through 99".

Also available are a number of reports summarizing the average Vehicle Miles Traveled (VMT) in selected jurisdictions and other categories of highways. There are many different ways to present traffic volume summary information. Because the user determines the value of each presentation, the reports have been redesigned based on user requests and feedback. The people at VDOT Mobility Management's Traffic Monitoring Section who produce these books welcome requests for other helpful ways of presenting the summary information.

A compact disc (CD) is available that includes files in the Adobe® Portable Document Format (PDF) that can be displayed, searched, and printed using common desktop computer equipment. The CD includes the publications described above as well as a number of other reports, including specialized VMT summaries and smaller AADT reports for each city and town separately.

#### **Publication Notes**

#### Parallel Roads

For road inventory and management purposes, some roadways are counted separately by direction and have separately published traffic estimates for each direction of travel. Examples of such roadways are the interstate system and routes with separated facilities and (usually) one-way traffic facilities in urban areas. In these publications, they are referred to as parallel roads. As a convenience for the users of the publication, the listing for segments of roads with parallel segments are published with both the traffic estimates for their own direction of travel (e.g. I-95 Northbound) as well as the estimate of the total of all traffic on the same route including parallel roadways (all directions of I-95). The publication will have a "Combined Traffic Estimates for Parallel Roadways on this Route" or "Combined Traffic" identifiers for the combined direction of travel estimates.

Roadways such as I-395 with a North segment, a South segment and a separate Reversible lane segment will have the estimate for more than two parallel roadways included in the entire combined traffic estimate.

Some routes have very complicated paths through cities and towns. These parallel paths may be too complex to allow a relationship between nearby sections of the opposite direction on the same route. In this case, to indicate that the traffic estimates for such a road segment may not include all directions of traffic on that route, the line that would list the combined values will indicate "NA" for not available.

VDOT's traffic monitoring program includes more than 100,000 segments of roads and highways ranging from several mile sections of Interstate highways to very short sections of city streets. Due to problems experienced obtaining some traffic count data, and the level of quality necessary to maintain confidence in the data, no estimate is currently available for some segments of roadway. These segments are included in the publications indicating "NA" for not available. It is the intention of the VDOT's Mobility Management Traffic Monitoring group to obtain the data necessary and to report traffic volume estimates on all road segments included in these publications.

Many of the road segments in this program are local secondary roads. The amount and detail of data collected on these roads are not as great as the data collected on higher volume roads. The vehicle classification, average weekday traffic volumes, and the theoretical design hour traffic volumes are not calculated for these roads. The publications indicate "NA" for the information that is not available.

This publication is based on a traffic monitoring program initiated in 1997. Because the data collection techniques and statistical evaluation processes are different than those used in previous years, comparison with previous publications may be misleading.

Glossary of Terms:

Route: The Route Number assigned to this segment of roadway with the master inventory route number if this is an overlapping route, with official street or highway name if available.

Length: Length of the traffic segment in miles.

AADT: Annual Average Daily Traffic. The estimate of typical daily traffic on a road segment for all days of the week, Sunday through Saturday, over the period of one year.

QA: Quality of AADT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- H Historical Estimate
- M Manual Uncounted Estimate
- N AADT of Similar Neighboring Traffic Link
- O Provided By External Source
- R Raw Traffic Count, Unfactored

**4Tire**: Percentage of the traffic volume made up of motorcycles, passenger cars, vans and pickup trucks.

Bus: Percentage of the traffic volume made up of busses.

**2Axle Truck**: Percentage of the traffic volume made up of 2 axle single unit trucks (not including pickups and vans).

**3+Axle Truck**: Percentage of the traffic volume made up of single unit trucks with three or more axles

1Trail Truck: Percentage of the traffic volume made up of units with a single trailer.

2Trail Truck: Percentage of the traffic volume made up of units with more than one trailer.

QC: Quality of Classification Data:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- C Short Term Classified Traffic Count Data
- F Factored Short Term Traffic Count Data
- H Historical Estimate
- M Mass Collective Average
- N Classification Estimates of Similar Neighboring Traffic Link

K Factor: The estimate of the portion of the traffic volume traveling during the peak hour or design hour.

QK: Quality of the Peak Hour estimate:

- A Factor based on 30th Highest Hour Observed During at least 250 days of Continuous Traffic Data
- B Factor based on other Hour Observed During Less than 250 days of Continuous Traffic Data
- Factor based on Highest Hour Collected at in a 48 Hour Weekday Period
- M Factor based on Manual Estimate of design hour
- N Peak Hour Factor of Similar Neighboring Traffic Link
- O Provided by External Source

Dir Factor: The estimate of the portion of the traffic volume traveling in the peak direction during the peak hour..

AAWDT: Average Annual Weekday Traffic. The estimate of typical traffic over the period of one year for the days between Monday through Thursday inclusive.

QW: Quality of AAWDT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- M Manual Uncounted Estimate
- N AAWDT of Similar Neighboring Traffic Link
- O Provided by External Source

Year: Year for which the published values are appropriate. If the Quality of AADT (QA) is "R", the year is the year that the raw traffic count was collected, and if available,

### Route Shield Legend

#### Route Systems

North
81 Interstate Route Traffic volume data for Interstate Routes and some other routes are reported separately by direction, as well as combined.

(29) US Route

7 Virginia State Route

(600) Secondary Route

#### **Special Routes**

Bus Bus - Business Route
Bypas - Bypass Route
Truck - Truck Route
ALT ALT - Alternate Route
Wve - Wve Route connector

P - Parallel Route; Southbound or Westbound direction lanes of a numbered route where they are on a different road facility than the other direction.

The VDOT Maintainenance Jurisdiction number is displayed below the Secondary Route Number if the Maintenance Jurisdiction is different than the jurisdiction in the title of the report.

# Virginia Department of Transportation Mobility Management Division 2003 Annual Average Daily Traffic Volume Estimates By Section of Route Town of Shenandoah

						Town of Shena	ndoan								
Route	Length	AADT	QA	4Tire	Bus	T 2Axle 3+Axle			QC	K Factor	QK	Dir Factor	AAWDT	QW	Year
Town of Shenandoah				From:		aar al	,	1							
340	1.22	5900	N	97%	0%	SCL Shenando	2%	0%	N	0.094	N	0.537	6100	N	2003
340	0.65	6300	F	From: 94%	1%	69-706 1% 2%	2%	0%	F	0.084	F	0.561	6500	F	2003
				To-		NCL Shenando	oah								
				From:		Rockingham Coun	ty Line								
602	0.37	4300	F	96%	0%	1% 2%	0%	0%	С	0.088	F	0.534	4400	F	2003
602	0.42	2800	F	96%	0%	US 340 1% 2%	0%	0%	F	0.093	F	0.618	2800	F	2003
				To:		ECL Shenando	ah								
				From:		69-602									
683	0.38	890	F	99%	0%	0% 0%	0%	0%	С	0.098	F	0.537	910	F	2003
683	0.35	370	R	From:		69-1013				NA			NA		05/19/2003
				To: From:		69-706; 69-78	30								
683	0.73	350	R	To:		NCL Shenando				NA			NA		05/01/2000
								<u> </u>							
702	0.27	170	R	From:		SCL Shenando	oah			NA			NA		04/27/2000
				To: From:		69-602									
702	0.15	250	R	To:		69-1006				NA			NA		04/27/2000
				From:				1							
704	0.28	280	R	From:		Dead End				NA			NA		05/12/2003
				To: From:		US 340		-							
704	0.12	700	R							NA			NA		05/12/2003
69				To:		ECL Shenando	ah								
				From:		69-683									
706 Junior Ave	0.25	210	F	97%	2%	1% 0%	0%	0%	С	0.115	F	0.615	220	F	2003
				To:		US 340									
				From:		69-602									
(707)	0.09	580	R			0, 002				NA			NA		1995
(707)				To:		69-602									
				From:		1st Street									
(700)	0.21	300	R	<u> </u>		1st succi				NA			NA		05/12/2003
708	0.21	000		_						1471			147 (		00/12/2000
$\bigcirc$				From:	40/	US 340	201		_	<del>-</del>	_				
708	0.36	490	F	98% To:	1%	1% 0% 69-719; ECL Shen	0% andoah	0%	С	0.105	F	0.582	510	F	2003
				From:		N 1st Street									
(712)	0.31	300	R	<u> </u>		IV 1st Bucci				NA			NA		05/12/2003
712	0.01	000	••	To:		US 340							100		00/12/2000
				From:		69-708; ECL Shen	on dook	1							
	0.10	240	R			09-708, ECL SHE	andoan			NA			NA		04/27/2000
719	0.10	240	1							IVA			IVA		04/21/2000
				From:		69-602									
719	0.10	160	R	To:		(0.100)				NA			NA		04/27/2000
				10.		69-1006									
	0.04		_	From:		Dead End									0.4/07/0000
720	0.34	290	R							NA			NA		04/27/2000
				From:		69-602									
720	0.18	240	R	_						NA			NA		04/27/2000
Oa				To:		69-1006									
				From:		69-720									
721	0.09	170	R							NA			NA		04/27/2000
ny				To:		ECL Shenando	ah								
<del></del>															

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# Virginia Department of Transportation Mobility Management Division 2003 Annual Average Daily Traffic Volume Estimates By Section of Route Town of Shenandoah

					10WIT OF CHICHAFIAGAIT			
Route	Length	AADT	QA	4Tire	Bus 2Axle 3+Axle 1Trail 2Trail		$\Lambda \Lambda \Lambda \Lambda \Pi \Pi \Pi \Pi \Lambda \Lambda \Lambda \Lambda \Pi \Pi \Pi \Pi \Pi \Pi \Pi \Pi$	Year
Town of Shenandoah				From:	69-1020	İ		
725	0.18	130	R		09-1020	NA NA	NA	04/27/2000
	0.40			To: From:	69-712	<u> </u>		0=1101000
725	0.10	110	R	To	69-729	NA 1	NA	05/12/2003
				From:		I		
728	0.12	47	R		69-1020	NA	NA	05/12/2003
<u> </u>				To: From:	69-706 Junior Ave	]		
728	0.20	60	R	To:	69-729	NA 1	NA	05/12/2003
				From:		ļ. T		
(720)	0.23	150	R		69-780	I NA	NA	05/12/2003
729	0.20			To:	110 240	1		00/ 12/200
720	0.12	530	R	From:	US 340	NA	NA	05/12/2003
729				To:	Dead End	]		
				From:	69-683; 69-706			
780	0.19	90	R			NA	NA	04/27/2000
				To:	69-729			
$\sim$				From:	69-683			
1004	0.21	1200	R			NA	NA	05/12/200
				From:	US 340	]		
1004	0.15	650	R	To:	(0.1000	NA 1	NA	05/12/2003
				From:	69-1008			
1005	0.09	60	R	From:	69-706 Junior Ave	J NA	NA	05/12/2003
	0.00	•		To:	69-712	]	10.0	00/12/2000
				From:	US 340			
1006	0.08	270	R			NA	NA	05/12/200
				To:	69-1015 Gap Terminus			
1006	0.42	540	R	From:	69-1009 Gap Terminus	J NA	NA	05/19/200
	0.42	340	1	To:	69-692; 69-745	]	INA	03/13/200
				From:	Dead End			
1007	0.26	280	R		D van Ema	NA NA	NA	05/12/2003
69				To	US 340	1		
1007	0.06	200	R	From:	00310	NA	NA	05/12/2003
				To:	Dead End			
				From:	Shenvadale Ave			
1008	0.20	120	R			NA	NA	04/27/2000
na)				To: From:	69-602	]		
1008	0.20	150	R			NA NA	NA	04/27/2000
				To:	69-1004			
$\bigcirc$	0.40	400	_	From:	Dead End	) NA	NIA	05/40/000
1009	0.42	120	R			NA -	NA	05/12/2003
	0.04	400		From:	69-1004	NIA.	NIA.	05/40/000
1009	0.04	100	R	To:	69-1006	NA 1	NA	05/12/2003
				From:		<u>I</u>		
1010	0.07	160	R		US 340; NCL Shenandoah	J NA	NA	1997
	0.01		• • • • • • • • • • • • • • • • • • • •	Tar	60 1011	1	1 1/1	1001
1010	0.02	60	R	From:	69-1011	NA NA	NA	1997
	0.02	-	.,	To:	Dead End	110	INA	1001
				From:	69-1012	<del>:</del> 		
1011	0.14	100	R	ш	07-1012	I NA	NA	1997
				To:	69-1010			<u> </u>

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# Virginia Department of Transportation Mobility Management Division 2003 Annual Average Daily Traffic Volume Estimates By Section of Route Town of Shenandoah

					'	OWITO SHEHARIOOAH							
Route	Length	AADT	QA	4Tire	Bus	Truck 2Axle 3+Axle 1Trail		QC Fac	( ) и	Dir Factor	AAWDT	QW	Year
Town of Shenandoah				From:		US 340	ī						
1012	0.10	180	R	<u> </u>		653.0		N	Α		NA		1997
_				To: From:		69-1011	-						
1012	0.23	100	R	To:		D J E J		N	A		NA		1997
				From:		Dead End 69-708							
1013	0.08	80	R	<u> </u>		09-708	J	N	A		NA		05/12/2003
				To: From:		69-602	-						
1013	0.34	380	R	To:		(0. (02		N	A		NA		05/12/2003
				From:		69-683 69-708							
1015	0.07	130	R	<u> </u>		09-708		N	Α		NA		05/12/2003
69				To:		69-602							
1015	0.34	340	R	rioni.				N	A		NA		05/12/2003
				From:		69-1006	-						
1015	0.10	240	R	To:		69-683	1	N	A		NA		05/12/2003
				From:		69-683							
1016	0.07	440	R	<u> </u>		07-065		N	A		NA		04/27/2000
				To: From:		69-1013	-						
1016	0.08	500	R					N	A		NA		05/12/2003
				From:		69-1015	-						
1016	0.07	670	R					N	A		NA		05/12/2003
	0.07	450	R	From:		US 340		N	^		NA		04/27/2000
1016	0.07	450	K	To:		60 1014		IN	A		INA		04/27/2000
1016	0.07	310	R	From:		69-1014		N	A		NA		04/27/2000
(699)				To:		69-1008							
1016	0.08	280	R	From:				N	Α		NA		04/27/2000
				To: From:		69-702; 7th St	-						
1016	0.07	200	R					N	A		NA		04/27/2000
1016	0.07	440		From:		69-702	-						0.4/07/0000
	0.07	110	R	To:		69-719		N	А		NA		04/27/2000
				From:		Dead End							
1017	0.40	520	R					N	Α		NA		04/27/2000
				To:		69-707							
	0.14	NA		From:		Dead End		N	Α		NA		
1019	0.11			To:		69-1023							
				From:		69-683							
1020	0.20	290	R	To		110 240		N	A		NA		04/27/2000
				From:		US 340 Dead End	<u> </u>						
1022	0.13	NA		<u> </u>		DOM ENG		N	A		NA		
				То:		69-1023							
$\bigcirc$	2.24	440	_	From:	F	Page County Line; 69-693			^				05/46/2222
1023	0.21	110	R	_			-	N	A		NA		05/12/2003
(1023)	0.12	NA		From:		Liberty Ave		N	Δ		NA		
	0.12	17/1		To:		69-1022; 69-1023					INA		
				From:		69-692; 69-745; 69-1006							
1027	0.04	150	R					N	A		NA		05/12/2003
				To:		ECL Shenandoah							

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